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UNESCO Global Judges' Initiative: Survey on the Use of AI Systems by Judicial Operators

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Introduction

UNESCO's Judges' Initiative has engaged over 36,000 judicial actors from over 160 countries on activities designed to share knowledge on international and regional standards on freedom of expression, access to information, the safety of journalists and artificial intelligence (AI) and the rule of law. UNESCO works with judicial operators through the development of tools and resources, including a series of Massive Open Online Courses (MOOCs), the organization of on-the-ground trainings and workshops, and by building institutional partnerships with regional human rights courts and key judicial institutions.

In 2022, the Judges Initiative launched its programme on AI and the Rule of Law with the aim of engaging stakeholders within justice systems in a global discussion on the applications of artificial intelligence and its impact on the rule of law. This follows up on UNESCO's Recommendation on the Ethics of Artificial Intelligence, which was adopted by UNESCO's 193 Member States in 2021. The Recommendation is the

first global standard for the governance of AI based on universally accepted values and principles. It underlines the value of "AI systems to improve access to information and knowledge" and the need to "enhance the capacity of the Judiciary to make decisions related to AI systems as per the rule of law and in line with international law and standards".

Even as legislative initiatives are underway to guide the governance of AI, it is imperative that judges, prosecutors and public servants in judicial administrations enhance their capacities to understand and manage AI-related risks. Therefore, UNESCO is not only helping build capacities on AI and the Rule of Law for judges, but is also providing guidance to judges on the responsible use of AI systems within judicial contexts. Such guidance is essential to promote adherence to international human rights law. In this context, the survey brings out insights from UNESCO's global network of judicial operators on how they are engaging with Artificial Intelligence, and more specifically, with generative AI.

Why the Survey?

The interest in adopting AI tools by courts and tribunals is growing, and their access to generative AI tools has increased in recent years.[1] More recently, judges, judicial support staff, prosecutors, and lawyers (judicial operators) around the globe have started to use chatbots powered by Large Language Models (LLMs) to draft legal documents, judicial decisions, and elaborate arguments in court hearings.[2]

The survey carried out by UNESCO for judicial operators aims to understand their use of AI tools in work- related activities, the extent of such usage of AI in legal tasks, and what some of the perceived risks of the use of AI tools within judicial contexts are. Additionally, the survey studies whether there were guiding regulations or trainings carried out by the judicial operators' respective organizations to help them understand the outputs of AI tools. The complete results of this survey are presented in this document, with a majority of the respondents indicating the need for guidelines for the use of AI within judicial contexts.

The results of the UNESCO survey will form the basis of the publication of the UNESCO Guidelines for the Use of AI Systems in Courts and Tribunals.

Key definitions

- **AI system:** Computational systems that can "process data and information in a way that resembles intelligent behaviour, and typically includes aspects of reasoning, learning, perception, prediction, planning or control" (UNESCO 2022, 10).
- **Generative AI system:** Computational systems "that communicate in natural language, able to give answers to relatively complex questions and can create content (provide a text, picture, or sound) following a formulated question or instructions (prompt)" (CEPEJ-GT-CYBERJUST 2024, 2).
- **Individual members of the judiciary:** Magistrates, judges, justices, judicial officers, and judicial support staff.
- **Judiciary:** The organizations that are part of the judiciary and their individual members.
- **Large Language Models (LLMs):** Generative AI models "that process textual inputs, known as prompts, and generate text outputs based on them. Their inputs, as well as outputs, can be in different text formats such as natural language, tabulated text, or even program code" (BSI 2024, 7).
- **Organizations of the judiciary:** Bodies that govern the judiciary, courts, and tribunals.

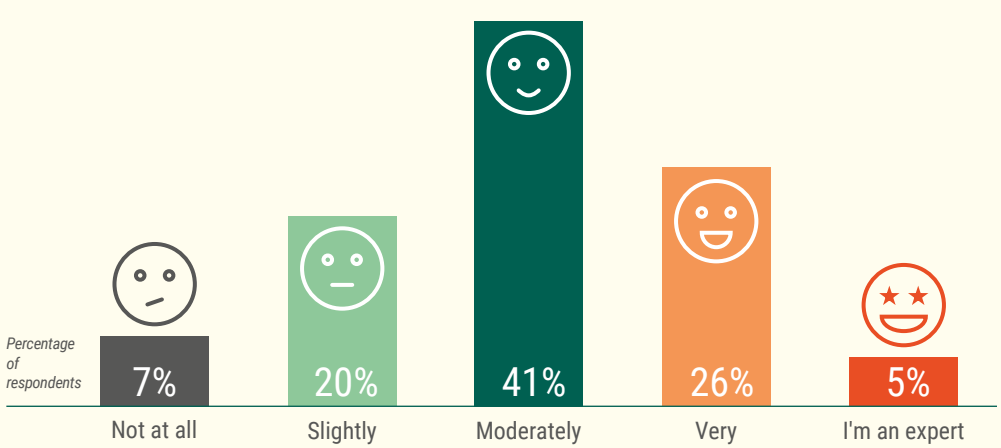
Survey Findings

Between September and December 2023, UNESCO surveyed its network of judicial operators to explore whether they were using AI systems, the problems being addressed with the use of these AI systems, and their perceptions about using these technologies in judicial contexts.[3] During this period, **563 responses were recorded from judges, prosecutors, lawyers, civil servants in legal administration, and researchers working in 96 countries**.[4]

A. How familiar are judicial operators with AI?

Ninety-three percent of the judicial operators who answered the survey responded that they were familiar with AI and how it works. The study's results on the judicial operators' familiarity with AI systems followed a normal distribution: **31% considered themselves experts or very familiar with the subject, 41% declared their knowledge of AI was moderate, 20% believed they knew slightly, and 7% acknowledged knowing nothing about the topic** (Figure 1).

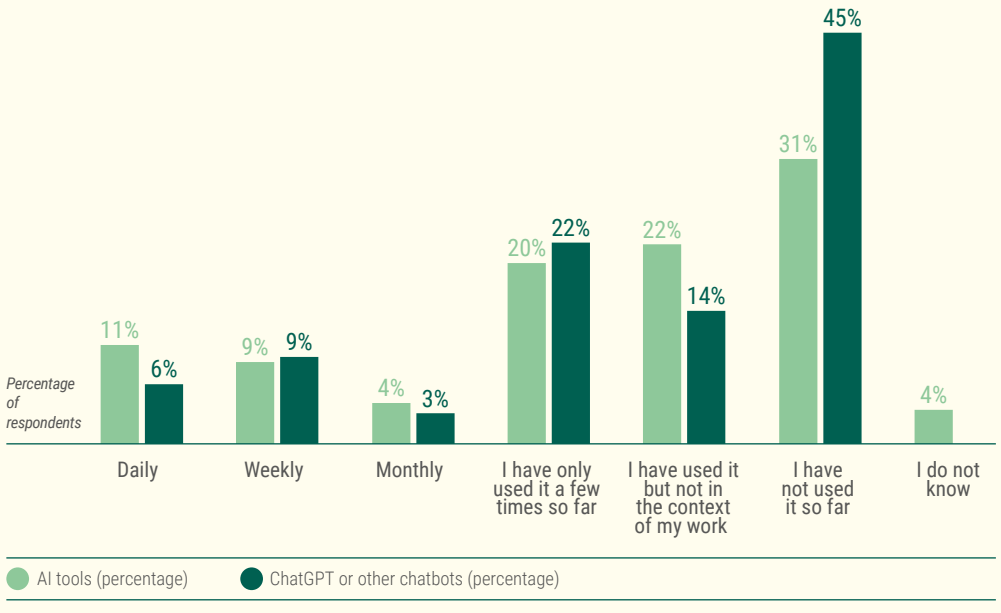
Figure No. 1 – How familiar are respondents with AI systems



B. How do judicial operators use AI systems?

Forty-four percent of the judicial operators who answered the survey stated that they had used AI tools for work-related activities, and 41% said they had used ChatGPT or other AI chatbots. When asked how often they use AI systems in their work, **20% of the respondents answered that they had used AI systems only a few times, 13% on a weekly or monthly basis, and 11% daily**. The questions related to using AI chatbots in the workplace presented similar results. Figure 2 shows the distribution of respondents who do and do not use AI tools and chatbots for their legal work and how often they use these tools.

Figure No. 2 – Whether respondents use AI tools and AI chatbots for work-related activities



The number of judicial operators who do not use AI tools is high: 53% of the respondents declared that they either have not used them or used them for activities unrelated to their jobs. 59% of the respondents have not used AI chatbots for work-related activities. These results can be explained by the additional survey findings reported below regarding barriers to accessing AI tools, lack of training, perceived risks of using AI tools for legal matters, and lack of formal rules and guidance.

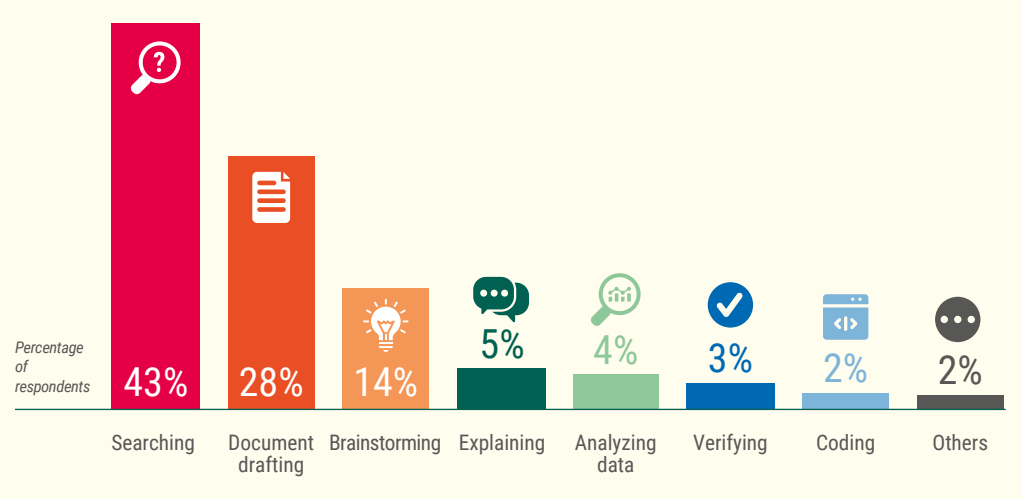
C. How do judicial operators access AI tools?

According to the survey, very few judicial operators obtained access to AI tools from their respective organizations: **16% said their organization provided access, 71% accessed a free version, and 12% paid a subscription**.

D. What tasks are performed by judicial operators with AI chatbots?

The following two subsections summarize the answers of the survey respondents who have used AI chatbots. **The judicial operators stated that they used AI chatbots such as ChatGPT to perform three broad tasks: searching (43%), drafting documents (28%), and brainstorming (14%)** (Figure 3).

Figure No. 3 – The type of tasks for which surveyed judicial operators use AI chatbots



Searching

Forty-three percent of the respondents declared they used AI chatbots to search for legislation, jurisprudence, doctrine or legal literature, information on facts, meanings, and definitions, and technical (non-legal) information.

Writing

Twenty-eight percent of the judicial operators stated that they used chatbots for tasks associated with document drafting, such as summarizing texts, drafting trivial texts (e.g., a routine e-mail), drafting substantial texts (e.g., legal arguments to be included in a judgment or legal opinion), translating a text into another language, modifying information to adapt it to specific formats or presentation styles, simplifying and correcting texts.

Brainstorming

Fourteen percent of the judicial operators who responded to the survey use AI chatbots for brainstorming, for example, to explore new ideas, get inspired, or test their ideas (e.g., using the chatbot as a sparring partner).

Other uses

A minority of judicial operators answered that they used AI chatbots for tasks related to clarifying or simplifying complex concepts (5%), analyzing data (4%), verifying the accuracy and reliability of information (3%), and computer coding (2%).

E. How do judicial operators use the outputs of AI chatbots?

In terms of how they use the information produced by AI chatbots, **55% of the respondents said that they considered the system's output to write their texts, 39% that they used the chatbot's output but only after conducting a review and editing process, and only 6% declared that they directly used the chatbot's output as-is without any review or verification**.

These findings are particularly relevant given that **69% of judicial operators acknowledged that using AI chatbots for legal work may carry some risks**, as explained in the following subsection, and highlight the importance of principles and rules for using these tools.

F. What are the perceptions of the risks of using AI systems?

The respondents identified diverse risks associated with using AI chatbots in legal contexts.

First, **27% of the judicial operators who answered the survey were concerned about the quality of the AI chatbot's output, particularly the potential inaccuracy, falsehood,** and unreliability of the information generated by the chatbot.

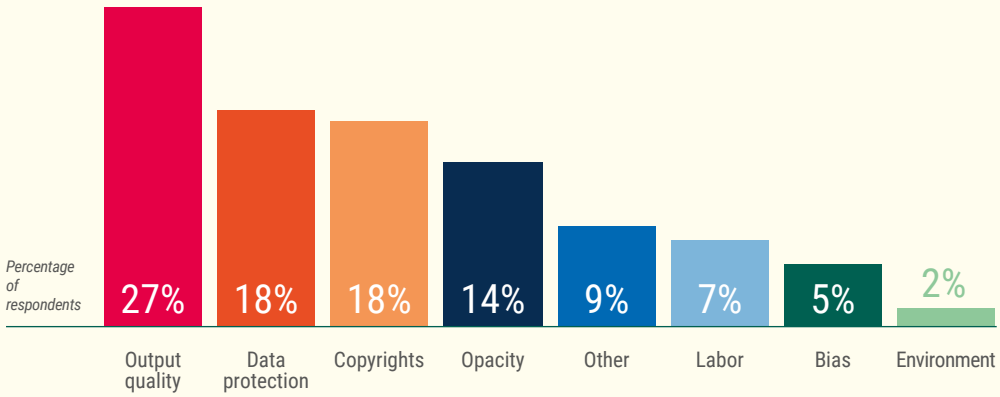
Secondly, **18% of the respondents identified potential negative issues related to privacy, personal data protection, and data security.** Thirdly, **17% of the respondents expressed concerns regarding potential copyright infringements, integrity, and the originality of the chatbot's output**.

Thirdly, **14% of judicial operators raised concerns regarding the lack of transparency of AI chatbots.** Respondents identified the main opacity elements regarding AI chatbots as the data used to train the system, how it was developed, and how it operates.

Other potential negative matters identified by judicial operators were labor-related issues such as the replacement of humans by machines and the work conditions of the people who contribute to developing these tools (7%), the reinforcement of biases in the data (5%), and negative impacts of the use of AI systems to the environment on account of their high energy consumption (2%).

Figure 4 presents the negative issues associated with the use of AI chatbots in legal work.

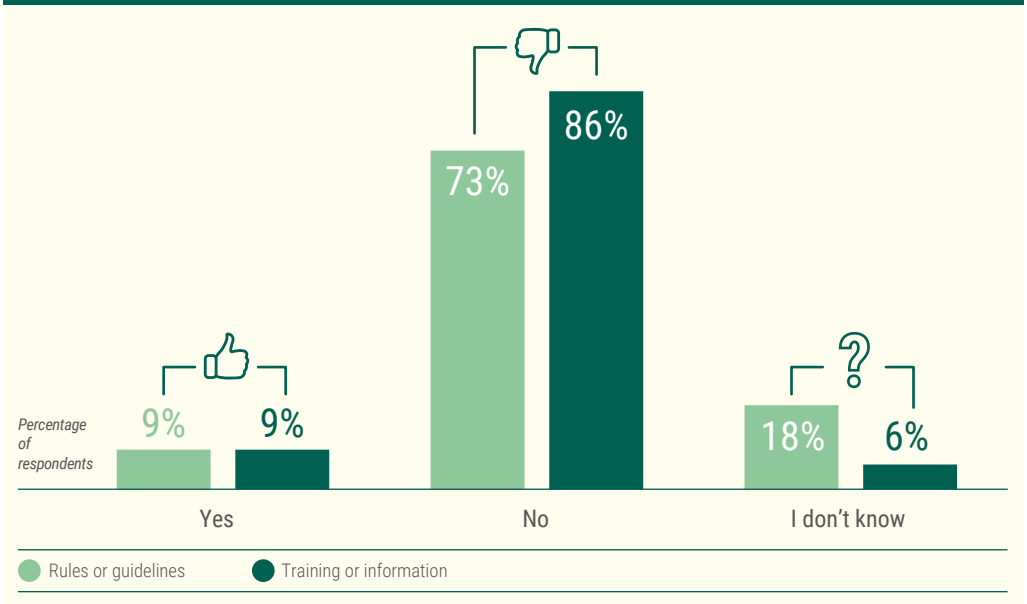
Figure No. 4– Potential negative issues associated with the use of AI chatbots in legal work



G. To what extent are judicial operators subject to guidelines or regulations for using AI chatbots, and do they have access to AI-related training?

Only 9% of judicial operators stated that their organization had issued guidelines or regulations for using AI chatbots. **The same percentage of respondents declared that their organization had provided AI-related training or information** (Figure 5). The percentage of judicial operators who acknowledged that they did not know whether their organizations provided rules or guidelines was relatively high: 18%

Figure No. 5 – Whether the judicial operators' organization has rules or guidelines for the use of AI chatbots or provided information or training



Based on the responses of the judicial operators who answered affirmatively to the question on the need for guidance, the five main rules established by their organization were the following: i) prohibiting the use of AI chatbots; ii) prohibiting the use of AI systems use for specific tasks, such as determining prison time for an individual; iii) forbidding the inclusion of certain information in prompts for AI chatbots, particularly personal data and confidential information; iv) requiring the users to explicitly indicate how the AI chatbot was used and clearly mark the text produced by the

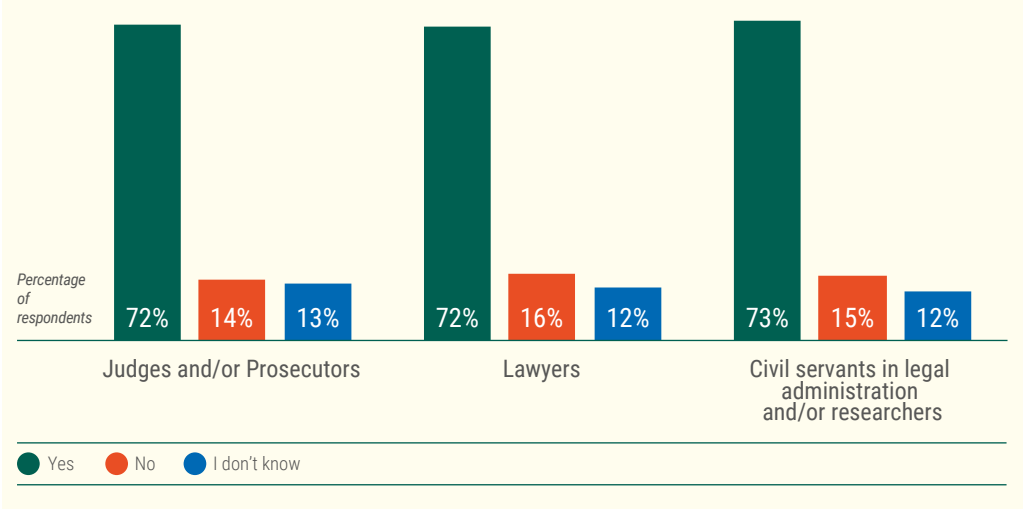
tool; and, v) extending pre-existing rules or guidance provided by other organizations, such as AI ethical guidelines or content citation rules.

Additionally, **27% of the judicial operators who voluntarily shared additional comments for the survey mentioned the need for courses and training on AI specifically tailored for judicial operators.**

H. Judicial operators overwhelmingly call for the need for guidelines for the use of AI tools

Most respondents believe that there should be mandatory regulations on using AI chatbots for different types of judicial operators. More specifically, 73% of the respondents considered that there should be mandatory rules for judges and prosecutors, 72% for lawyers, and 73% for civil servants in legal administration and researchers (Figure 6).

Figure No. 6 – Respondents' perception of whether mandatory regulations should exist about using AI chatbots for different types of judicial workers



Finally, **92% expressed the relevance of UNESCO publishing guidelines for using AI and generative AI by judicial operators.**

Discussion and Conclusion

The survey findings clearly indicate that formal guidance on adequately using AI tools for individuals or organizations in the justice sector is scarce. There are few published official principles, rules, or guidelines on how AI tools can be used ethically and responsibly for the administration of justice. However, there are notable exceptions in Brazil (2020), Canada (2023), New Zealand (2023), and the United Kingdom (2023), where bodies that govern the judiciary and courts have issued official orientations.[5]

The need for guidance is accentuated by new AI laws that include specific rules regarding using these tools in judicial contexts. For example, the European Union's AI Act classifies as "high risk" those AI systems that are "intended to be used by a judicial authority or on their behalf to assist a judicial authority in researching and interpreting facts and the law and in applying the law to a concrete set of facts, or to be used in a similar way in alternative dispute resolution…". Such classification will trigger obligations for the deployers of these AI systems such as implementing a risk management system and ensuring human oversight of the tools, among others.

Additionally, AI systems that are integrated in decision-making processes may have cascading effects over the whole judicial system. On one hand, such impacts may be

negative, for example, when the deployment contributes to systematic discrimination of vulnerable individuals or groups of individuals in situations in which such tools are biased, defective or misused. On the other hand, the effective adoption of AI systems may benefit court-users. For example, the use of AI tools for court management in the judiciary could contribute to ensuring efficiency, for example the right to trial within reasonable time, as well as streamlining of judicial processes. Hence, new measures, at the organizational and individual levels, could be required to prevent and mitigate negative effects and to enhance the opportunities to improve the administration of justice.

Furthermore, AI technologies have the potential of digitally transforming and digitally disrupting the practice of law, as well as judicial adjudication. Therefore, there is a need to provide guidance to organizations of the judiciary, such as courts and tribunals, and to individuals that are part of these judicial organizations, including judges, judicial officers, and judicial support staff on deploying and using AI tools to support the administration of justice.

Endnotes

1 For a dataset of AI tools used by judicial operators around the World, see CEPEJ, 'Resource Centre Cyberjustice and AI' (European Commission for the efficiency of justice (CEPEJ) 2023) <https://public.tableau.com/app/profile/cepej/viz/ResourceCentreCyberjusticeandAI/AITOOLSINITIATIVESREPORT?publish=yes>. For an overview of different tasks carried out with AI systems in the justice sector, see F Bell and others, 'AI Decision-Makingand the Courts: A Guide for Judges, Tribunal Members and Court Administrators' (Australasian Institute of Judicial Administration 2022); UNESCO, 'Global Toolkit on AI and the Rule of Law for the Judiciary' (The United Nations Educational, Scientific and Cultural Organization (UNESCO) 2023) CI/DIT/2023/AIRoL/01 <https://unesdoc.unesco.org/ark:/48223/pf0000387331>. <https://unesdoc.unesco.org/ark:/48223/pf0000387331>. For reports and papers on specific AI tools used by judicial operators, see Nikolaos Aletras and others, 'Predicting Judicial Decisions of the European Court of Human Rights: A Natural Language Processing Perspective' (2016) 2 PeerJ Computer Science 1; Urvashi Aneja and Dona Mathew, 'Artificial Intelligence in India's Judicial System: A Case of Organised Irresponsibility?' (Digital Futures Lab 2023) <https://www.responsibletech.in/post/smart-automation-and-artificial-intelligence-in-indias-judicial-system-a-case-of-organised-irresponsibility>; Elsa Estevez, Sebastián Linares and Pablo Fillottrani, 'PROMETEA: Transformando La Administración de Justicia Con Herramientas de Inteligencia Artificial' (Banco Interamericano de Desarrollo 2020) <http://dx.doi.org/10.18235/0002378>; Collen Zvandasara Kufakwababa, 'Artificial Intelligence Tools in Legal Work Automation: The Use and Perception of Tools for Document Discovery and Privilege Classification Processes in Southern African Legal Firms' (Stellenbosch University 2021) <http://hdl.handle.net/10019.1/109893>; Goretty Carolina Martinez, 'La Inteligencia Artificial y Su Aplicación al Campo Del Derecho' [2012] Alegatos 827; Masha Medvedeva, Michel Vols and Martijn Wieling, 'Using Machine Learning to Predict Decisions of the European Court of Human Rights' (2020) 28 Artificial Intelligence and Law 237; Ministro do Superior Tribunal de Justiça, *Artificial Intelligence: Technology Applied to Conflict Resolution in the Brazilian Judiciary* (Fundação Getulio Vargas 2020) <https://bdjur.stj.jus.br/jspui/handle/2011/156490>; Marion Oswald and others, 'Algorithmic Risk Assessment Policing Models: Lessons from the Durham HART Model and "Experimental" Proportionality' (2018) 27 Information & Communications Technology Law 223; Víctor Saavedra and Juan Carlos Upegui, 'PretorIA y La Automatización Del Procesamiento de Causas de Derechos Humanos' (Derechos Digitales América Latina y Dejusticia 2021) <https://www.derechosdigitales.org/wp-content/uploads/CPC_informe_Colombia.pdf>.

2 Juan David Gutiérrez, 'Judges and Magistrates in Peru and Mexico Have ChatGPT Fever' (*Tech Policy Press*, 19 April 2023) <https://techpolicy.press/judges-and-magistrates-in-peru-and-mexico-have-chatgpt-fever/> accessed 16 October 2023; Juan David Gutiérrez, 'ChatGPT in Colombian Courts: Why We Need to Have a Conversation about the Digital Literacy of the Judiciary' (*VerfBlog*, 23 February 2023) <https://verfassungsblog.de/colombian-chatgpt/>; Juan David Gutiérrez, 'AI Technologies in the Judiciary: Critical Appraisal of Large Language Models in Judicial Decision-Making' in Regine Paul, Emma Carmel and Jennifer Cobbe (eds), *Handbook on Public Policy and AI* (Edward Elgar Publishing forthcoming).

3 Operating in over 160 countries, this innovative programme offers comprehensive and practical training tools to members of the judiciary to strengthen knowledge and capacities on regional and international standards on freedom of expression, access to information and the safety of journalists. In 2022, the Judges Initiative expanded its scope by launching its program on artificial intelligence and the rule of law with the aim of engaging stakeholders within Justice Systems in a global and timely discussion on the applications of artificial intelligence and its impact to the rule of law.

4 Fifty-one per cent of respondents came from Latin America and the Caribbean, 22% from Africa, 13% from Asia and the Pacific, 10% from Europe and North America, and the remaining 4% from Arab states. Fifty-eight percent of the respondents identified as men, 41% as women, and less than 1% declared their gender identity to be "other" or preferred not to answer. Furthermore, 82% of the respondents are between 26 and 55. Regarding their educational level, 67% stated that they obtained a graduate-level degree. Regarding the type of position that the respondents hold, the answers were relatively balanced between judicial operators who work for the state and those who work in the private sector: 29% are judges, 12% are civil servants in legal administration, 8% are prosecutors, 25% are lawyers, 9% work as academic researchers, and the remaining 17% are engaged in diverse types of activities associated with the judicial sector (e.g. advisors, teachers, students, journalists, among others).

5 For guidelines issued by the bodies that govern the judiciary and courts, see: UK Courts and Tribunals Judiciary, 'Artificial Intelligence (AI) - Guidance for Judicial Office Holders' (2023) <https://www.judiciary.uk/wp-content/uploads/2023/12/AI-Judicial-Guidance.pdf>; Conselho Nacional de Justiça, 'Dispõe Sobre a Ética, a Transparência e a Governança Na Produção e No Uso de Inteligência Artificial No Poder Judiciário e Dá Outras Providências' (Conselho Nacional de Justiça (CNJ) 2020) Resolução No 332 <https://atos.cnj.jus.br/atos/detalhar/3429>; Courts of New Zealand, 'Guidelines for Use of Generative Artificial Intelligence in Courts and Tribunals' (2023) <https://www.courtsofnz.govt.nz/going-to-court/practice-directions/practice-guidelines/all-benches/guidelines-for-use-of-generative-artificial-intelligence-in-courts-and-tribunals/>; Federal Court, 'Interim Principles and Guidelines on the Court's Use of Artificial Intelligence' (2023) <https://www.fct-cf.gc.ca/en/pages/law-and-practice/artificial-intelligence>; Federal Court, 'Notice to the Parties and the Profession: The Use of Artificial Intelligence in Court Proceedings' (2023) <https://www.fct-cf.gc.ca/Content/assets/pdf/base/2023-12-20-notice-use-of-ai-in-court-proceedings.pdf>. It is worth noting that the Courts of New Zealand published three separate guidelines for judges, judicial officers, tribunal members and judicial support staff; lawyers; and, non-lawyers, respectively. Similarly, the Federal Court of Canada issued "Principles and Guidelines on the Court's Use of Artificial Intelligence" and a Notice to parties, self-represented litigants, and interveners on the use of AI in Court proceedings. For guidelines issued by other public bodies see: CEPEJ, 'European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and Their Environment' (European Commission for the efficiency of justice (CEPEJ) 2019) Adopted at the 31st plenary meeting of the CEPEJ (Strasbourg, 3-4 December 2018).; CEPEJ-GT-CYBERJUST, 'Use of Generative Artificial Intelligence (AI) by Judicial Professionals in a Workrelated Context' (European Commission for the efficiency of justice (CEPEJ) CEPEJ Working group on Cyberjustice and Artificial Intelligence (CEPEJ-GT-CYBERJUST) 2024) Information Note <https://rm.coe.int/cepej-gt-cyberjust-2023-5final-en-note-on-generative-ai/1680ae8e01>.

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